

1 TITLE: PEACH TREE NAMED: 'SUPER LADY'

2 NAMES AND ADDRESSES OF INVENTORS:

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9 CITIZENSHIP: All inventors are citizens of the United States
10 of America.

11 BACKGROUND OF THE VARIETY:

12 FIELD OF THE INVENTION

13 In the field of plant genetics, we conduct an extensive
14 and continuing plant-breeding program including the
15 organization and asexual reproduction of orchard trees, and
16 of which plums, peaches, nectarines, apricots, cherries and
17 interspecifics are exemplary. It was against this background
18 of our activities that the present variety of peach tree was
19 originated and asexually reproduced by us in our experimental
20 orchard located near Modesto, Stanislaus County, California.

21 PRIOR VARIETIES: Among the existing varieties of nectarine
22 and peaches, which are known to us, and mentioned herein,
23 'Earlirich' Peach (U.S. Plant Patent #9002), 'Super Rich'
24 Peach (U.S. Plant Patent #9860), 'Ruby Gold' Nectarine (U.S.
25 Plant Patent #3101), 'Fayette' Peach (non-patented) and
26 'Desert Gold' Peach (non-patented).

27 STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH AND
28 DEVELOPMENT: Not applicable.

1 ORIGIN OF THE VARIETY: The new variety of peach tree (*Prunus*
2 *persica*) was originated by us in our experimental orchard
3 located near Modesto, California from a first generation
4 cross between two proprietary seedlings with field
5 identification numbers 171LE615 and 54Z432. The maternal
6 parent (171LE615) was originated by us from a cross between
7 the following varieties; 'Earlirich' Peach (U.S. Plant Patent
8 #9002) and 'Super Rich' Peach (U.S. Plant Patent #9860). The
9 paternal parent (54Z432) originated from crosses between the
10 following varieties; 'Fayette' Peach (non-patented), 'Ruby
11 Gold' Nectarine (U.S. Plant Patent #3101) and the proprietary
12 numbered selection (64EF214). A large number of seedlings
13 from this first generation cross were budded to older trees
14 of 'Nemagaurd' Rootstock (non-patented), to accelerate rapid
15 fruit production for evaluation. Under careful and close
16 observation, one such budded seedling exhibited desirable
17 fruit characteristics in the early maturity season and was
18 selected in 2001 for additional asexual propagation and
19 commercialization.

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21 ASEXUAL REPRODUCTION OF THE VARIETY: Asexual reproduction of
22 the new and distinct variety of peach tree was by budding to
23 'Nemagaurd' Rootstock (non-patented), as performed by us in
24 our experimental orchard located near Modesto, California,
25 and shows that reproductions run true to the original tree
26 and all characteristics of the tree and its fruit are
27 established and transmitted through succeeding asexual
28 propagations.

1 SUMMARY OF THE NEW VARIETY: The new variety of peach is of
2 large size, vigorous, upright growth and a productive and
3 regular bearer of medium to large size, firm, yellow flesh,
4 clingstone fruit with good flavor and eating quality. The
5 fruit is further characterized by ripening in the early
6 maturity season, having an attractive orange-red blush
7 covering a rich, yellow skin color, and being relatively
8 uniform in size throughout the tree. The tree is
9 characterized by having a relatively low winter chilling
10 requirement of approximately 350 hours at or below 45°F. In
11 comparison to the low chilling variety 'Desert Gold' Peach
12 (non-patented), the fruit is larger in size, has firmer flesh
13 and is approximately 3 weeks earlier in maturity. In
14 comparison to 'Super Rich' Peach (U.S. Plant Patent #9860)
15 the fruit of the new variety is 1 week earlier in maturity
16 and the tree requires approximately 350 hours less winter
17 chilling at or below 45°F.

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19 PHOTOGRAPH OF THE VARIETY: The accompanying color
20 photographic illustration shows typical specimens of the
21 foliage and fruit of the present new peach variety. The
22 illustration shows the upper and lower surface of the leaves,
23 an exterior and sectional view of a fruit divided in its
24 suture plane to show flesh color, pit cavity and the stone
25 remaining in place. The photographic illustration was taken
26 shortly after being picked (shipping ripe) and the colors are
27 as nearly true as is reasonably possible in a color
28 representation of this type.

1 DESCRIPTION OF THE VARIETY: The following is a detailed
2 botanical description of the new variety of peach tree, its
3 flowers, foliage and fruit, as based on observations of 5
4 year old specimens grown near Modesto, California, with color
5 in accordance with Munsell Book of Color.

6 TREE

7 Size:

8 Large, normal for most low
9 chill peach varieties.
10 Pruned in height at maturity to
3 to 3 1/2 meters for
economical harvesting of
fruit.

11 Vigor:

12 Vigorous, tree growth of 1.5 to
13 2 meters the first growing
season. Varies with
14 fertility, type of soil and
cultural practices.

15 Form:

16 Upright, usually pruned to vase
17 shape to allow more sunlight
and air movement to center
of tree.

18 Branching Habit:

19 Upright, crotch angle
approximately 30°, increases
with heavy crop load.

20 Productivity:

21 Productive, normal fruit
22 thinning and spacing
necessary for desired
23 marketable fruit. Fruit set
varies with climatic
conditions during bloom
period.

24 Bearer:

25 Regular, adequate fruit set 3
26 consecutive years.
No alternate bearing observed.

27 Fertility:

28 Self-fertile.

Density:

Medium dense, pruned to vase shape by opening center of tree which enhances fruit color and keeps fruit wood healthy.

Hardiness:

Hardy in all stone fruit growing areas of California. Winter chilling approximately 350 hours at or below 45°F.

TRUNK

Size:

Medium.
Average circumference 47.5 cm at 20.0 cm above ground on a 5 year old tree.

Stocky:

Medium.

Texture:

Medium shaggy, becomes rougher with age.

Color:

Varies from 2.5Y 7/2 to 2.5Y 5/2.

BRANCHES

Size:

Medium.
Average circumference 13.0 cm at 1.5 m above ground.

Surface Texture:

New growth relatively smooth, becoming rougher with age. Old growth medium rough.

Lenticels:

Average number 44 in a 25.8 square cm area.
Average length 5.1 mm.
Average width 1.4 mm.
Color varies from 2.5YR 6/8 to 5YR 5/8.

1 Color:

2 New growth varies from 2.5GY
3 6/6 to 2.5GY 5/8.
4 Old growth varies from 5YR 4/6
5 to 5YR 3/6.

6 LEAVES

7 Size:

8 Large.
9 Average length 147.5 mm.
10 Average width 30.9 mm.

11 Form:

12 Lanceolate.

13 Apex:

14 Acuminate.

15 Base:

16 Cuneate.

17 Margin:

18 Crenate.

19 Thickness:

20 Medium.

21 Surface Texture:

22 Upper surface relatively
23 smooth, slightly indented
24 over midrib and leaf veins.
25 Lower surface relatively
26 smooth, small ridges created
27 by midrib and pinnate
28 venation.
Both surfaces glabrous.

Petiole:

Medium.
Average length 9.2 mm.
Average width 1.4 mm.
Color varies from 5GY 7/6 to
5GY 6/6.
Longitudinally grooved, surface
glabrous.

Glands:

Globose.
Small.
Average length 0.6 mm.
Average diameter 0.4 mm.
Average number 2, varies from 1
to 2.

1 Located primarily on base of
2 leaf blade, some on upper
3 portion of petiole.
Color 2.5GY 5/6.

4 Color:

5 Upper surface varies from 5GY
6 4/6 to 5GY 3/6.
7 Lower surface varies from 5GY
8 5/4 to 5GY 5/6.
9 Midvein color 5GY 7/6.

10 FLOWER BUDS

11 Size:

12 Large.
13 Average length 19.3 mm.
14 Average width 10.8 mm.

15 Hardiness:

16 Hardy in all stone fruit
17 growing areas of California.

18 Form:

19 Conical, becoming elongated
20 before opening.

21 Pedicel:

22 Medium.
23 Average length 5.3 mm.
24 Average width 1.1 mm.
25 Color 2.5GY 7/8.

26 Color:

27 Varies from 5RP 7/10 to 5RP
28 7/8, varies with age of bud.

FLOWERS

Size:

Large, showy.
Average height 18.3 mm.
Average diameter 32.2 mm.

Petals:

Number 5, alternately arranged
to sepals.
Large.
Average length 20.1 mm.
Average width 19.6 mm.
Shape - orbicular.
Margin - sinuate, slightly
cupped.

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Color varies from 5RP 8/6 to 5RP 7/8.

Sepals:

Number 5, alternately arranged to petals.
Shape - ovate, apex rounded.
Average length 6.5 mm.
Average width 4.5 mm.
Color - upper surface varies from 2.5GY 6/6 to 5RP 6/8.
Lower surface varies from 7.5RP 3/6 to 7.5RP 3/8.
Upper surface glabrous, lower surface pubescent.

Stamens:

Average number per flower 41.
Average filament length 14.4 mm.
Filament color varies from N 9.5/ to 2.5RP 9/2 as flowers age.
Anther color varies from 10R 5/8 to 10R 5/10.

Pollen:

Self-fertile.
Color - 2.5Y 7/12.

Pistil:

Usually 1, varies from 1 to 2.
Surface - pubescent.
Average length 17.8 mm.
Average height compared to stamens, 0.7 mm higher.
Color 2.5GY 9/4.

Fragrance:

Very slight.

Blooming Period:

Date of first bloom
February 19, 2003.
Date of petal fall
February 27, 2003.
Varies slightly with climatic conditions.

Color:

5RP 8/6, fades as flowers mature.

Number Flowers per Flower Bud:

One.

Pedicle:

Medium size.
Average length 5.3 mm.
Average width 1.3 mm.
Color 2.5GY 7/6.

FRUIT

Maturity When Described:

Firm ripe.

Date of First Picking:

May 5, 2003.

Date of Last Picking:

May 9, 2003.

Varies slightly with climatic conditions.

Size:

Medium to large.
Average diameter axially 57.1 mm.
Average transversely in suture plane 63.0 mm.
Average weight 125.0 grams, average weight varies slightly with fertility of the soil, amount of thinning and climatic conditions.

Form:

Globose.

Suture:

Very shallow, extends from base to apex.

Ventral Surface:

Nearly smooth, very slightly lipped.

Apex:

Nearly rounded, varies from rounded to slightly retuse.

Base:

Retuse.

Cavity:

Rounded to slightly elongated in suture plane.
Average depth 3.5 mm.
Average breadth 12.8 mm.

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STEM

Size: Medium.
Average length 7.9 mm.
Average diameter 3.2 mm.

Color: Varies from 2.5GY 6/8 to 5GY 6/6.

FLESH

Ripens: Evenly.

Texture: Firm.

Fibers: Few, small, tender.

Firmness: Firm, has greater firmness than 'Desert Gold' Peach (non-patented).

Aroma: Moderate.

Amydgalin: Undetected.

Eating Quality: Good.

Flavor: Good, with a good balance between acid and sugar.

Juice: Moderate.

Brix: Average 9.5°, varies slightly with amount of fruit per tree and climatic conditions.

Color: Varies from 2.5Y 8.5/10 to 5Y 8/8.

Pit cavity varies from 2.5Y
8/10 to 2.5Y 7/12.

SKIN

Thickness:

Medium.

Surface:

Smooth.

Pubescence:

Moderate amount, short.

Tendency to Crack:

None.

Color:

Ground color varies from 10YR
7/10 to 2.5Y 8/8.

Approximately 55% overspread
with 5R 4/8 to 7.5R 4/8.

Tenacity:

Tenacious to the flesh.

Astringency:

None.

STONE

Type:

Clingstone.

Size:

Medium to large.

Average length 31.7 mm.

Average width 20.5 mm.

Average thickness 17.4 mm.

Form:

Ovoid.

Base:

Flat.

Apex:

Pointed.

Average length 1.5 mm.

Surface:

Pitted throughout, pit cavities
vary from round to slightly
elongated. Furrows creating

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ridges toward apex on upper
portion of stone.

Sides: Unequal, one side slightly
larger, extending further
from suture plane.

Ridges: Relatively smooth.

Tendency to Split:
Very slight.

Color: Varies from 10YR 7/4 to 10YR
6/6 when dry.

KERNAL

Form: Ovoid.

Taste: Bitter.

Viability: Non-viable, incomplete embryo.

Size: Medium.
Average length 12.2 mm.
Average width 10.5 mm.
Average thickness 5.0 mm.

Skin Color: 5Y 9/2 when dry.

USE

Dessert.
Market - local and long distance.

KEEPING QUALITY

Good, held firm in cold storage 2 weeks
at 38° to 42°F without
internal breakdown or
appreciable loss of flavor.

SHIPPING QUALITY

1 Good, minimal skin scarring or bruising
2 of flesh during picking and
3 packing trials.

4 PLANT/FRUIT DISEASE RESISTANCE/SUSCEPTIBILITY

5 No specific testing for
6 relative plant/fruit disease
7 resistance/susceptibility
8 has been designed. Under
9 close observation during
10 planting, growing, and
11 harvesting of fruit, under
12 normal cultural and growing
13 conditions near Modesto,
14 California, no particular
15 plant/fruit disease
16 resistance or susceptibility
17 has been observed. Any
18 variety or selection
19 observed during indexing of
20 plant characteristics with
21 abnormal fungus, bacterial,
22 virus or insect
23 susceptibility is destroyed
24 and eliminated from our
25 breeding program.

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18 The present new variety of peach tree, its flowers,
19 foliage and fruit herein described may vary in slight detail
20 due to climate, soil conditions and cultural practices under
21 which the variety may be grown. The present description is
22 that of the variety grown under the ecological conditions
23 prevailing near Modesto, California.
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